UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/712,381	11/13/2000	Thomas H. Kong	019680-000900US	9016

20350 7590 05/05/2004		EXAMINER
TOWNSEND AND TOWNSEND AND CREW, LLP		TRAN, TAM D
TWO EMBARCADERO CENTER		
EIGHTH FLOOR	ART UNIT	PAPER NUMBER
SAN FRANCISCO, CA 94111-3834	2676	7

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>*24 February 2004*</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *11-16* is/are allowed.

6)☒ Claim(s) *1-10 and 17-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-10, 17-24, are rejected under 35 U.S.C. 102(e) as being anticipated by Deering (USPN

6525723 B1).

2.   In regard to claims 1, 7, 22, Deering teaches a method of generating pixels in a graphics

system comprising: providing a plurality of sub-samples; memory for storing sub-sample; see

col.4 lines 26-32; providing a source pixel; determining which of the plurality of sub-samples are

covered by the source pixel, and which of the plurality of sub-samples are not covered by the

source pixel; (see col.4 lines 30-37 and col.25 lines 3-15, showing the samples is close or far

from the center pixel corresponding to cover or not cover by the pixel); filtering the sub-samples

which are covered by the source pixel; blending the filtered sub-samples with the source pixel to

create a blended sub-sample (sum all the weight samples that contribute to the output pixels,

which read on blending filtered sub-sample with source pixels ,and filtering subsamples which

are not covered by the source pixel together with the blended sub-sample.); see col.18 lines 49-

67; and filtering the sub-samples which are not covered by the source pixel together with the

blended sub-sample. (See col.5 lines 1-5, showing the first and second set of store sample being

filtered by the first and second filter respectively)

3.   In regard to claims 2, 3, 14, Deering teaches a method of generating pixels in a graphical

system, wherein the filtering the sub-samples which are covered and not covered by the source

pixel, filtering is done by averaging the sub-samples. See col.9 lines 5-10.

4.   In regard to claim 4, 5, 9, 23, Deering teaches a method of generating pixels in a

graphical system, having blending and filtering and the weighting is needed for blending sub-

sample. See col.9 lines 5-10.

5.   In regard to claim 6, Deering teaches a method of generating pixels in a graphical system,

further comprising replacing the sub-samples which are covered by the source pixel with the

blended sub-sample. See col.2 lines 35-40

6.   In regard to claim 8, Deering teaches a method of generating pixels in a graphical system,

wherein filter is refered to as averaging corresponding to first filter and second filter are

averaging circuits. See col.9 lines 5-10.

7.   In regard to claim 10, Deering teaches a method of generating pixels in a graphical

system, wherein the blender output provides a new sub-sample, and where the new sub-sample

replaces in memory the sub-samples covered by the image. See col.9 lines 1-3.

8.   In regard to claim 17, Deering teaches an apparatus for generating pixels in a graphical

system, comprising: central processing unit; a sub-sample memory having an first output and a

second output; see col.4 lines 27- 35; a first filter having an input coupled to the first sub-sample

memory output; a blender having an output, a first input, and a second input, the first input

coupled to the first filter output; see col.2 lines 35-40; a graphics pipeline having an output

coupled to the second blender input; see col.8 lines 65-67; and a second filter having a first input

and a second input, the first input coupled to the second sub-sample memory output and the

second input coupled to the blender output. See col.5 lines 1-5, col.9 lines 1-11.

9.   In regard to claim 18, Deering teaches an apparatus for generating pixels in a graphics

system comprising: a memory for storing sets of a first number of sub-samples, where each set of

sub-samples is associated with a pixel; see col.4 lines 32-35; a second number of filters, each

filter coupled to the memory; and a third number of blenders, each coupled to one of the second

number of filters, wherein the third number is less than the first number. See col.25 lines 3-15.

10.   In regard to claim 19-21, Deering teaches a method of generating pixels in a graphical

system, wherein third number is one, and the first number is 4 and 8. See col.25 lines 3-10.

11.   In regard to claim 24, Deering teaches a method of generating pixels in a graphical

system, wherein the source pixels is received from a graphic pipeline. See col.32 lines 15-20.

Allowable Subject Matter

1.   Claims 11-16 are allowed.

2.   The following is a statement of reasons for the indication of allowable subject matter:

The prior art taken singly or in combination does not teach or suggest an apparatus for generating

pixels in a graphical system, comprising: a first filter having an input coupled to the first sub-

sample memory output; a blender having an output, a first input, and a second input, the first

input coupled to the first filter output; a graphics pipeline having an output coupled to the second

blender input; and a second filter having a first input and a second input, the first input coupled

to the second sub-sample memory output and the second input coupled to the blender output.

The closest prior art shows a computer graphic system ulitilize sample buffer, wherein the graphic system may adjust filtering to reduce artifacts or implement display effects but does not disclose a first filter having an input coupled to the first sub-sample memory output; a blender having an output, a first input, and a second input, the first input coupled to the first filter output; a graphics pipeline having an output coupled to the second blender input; and a second filter having a first input and a second input, the first input coupled to the second sub-sample memory output and the second input coupled to the blender output.

Response to Arguments

12.   Applicant's arguments filed on (02/24/2004), have been fully considered but they are not persuasive.

Applicant argues that the prior art does not teach "determining which of the plurality of sub-samples are covered by the source pixel, and which of the plurality of sub-samples are not covered by the source pixel. Blending the filtered sub-samples with the source pixel to create a blended subsample; filtering the subsamples which are not covered by the source pixel together with the blended sub-sample." However, examiner respectfully disagrees with the argument because on col.25 lines 3-15, Deering teaches the samples 294 fall within the regions of filter, sample 290 fall outside the maximum filter extent corresponding to sub-samples are covered by the source pixel, and which of the plurality of sub-samples are not covered by the source pixel; on col.18 lines 49-65, Deering teaches sum all the weight samples that contribute to the output pixels which are the pixels of the display, which read on blending filtered sub-sample with

source pixels ,and filtering subsamples which are not covered by the source pixel together with

the blended sub-sample. For these reasons, the rejections are maintained.

13.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Conclusion

14.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to **Tam D. Tran** whose telephone number is **703-305-4196.** The

examiner can normally be reached on MON-FRI from 8:30 – 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, **Matthew Bella** can be reached on **703-308-6829.**

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

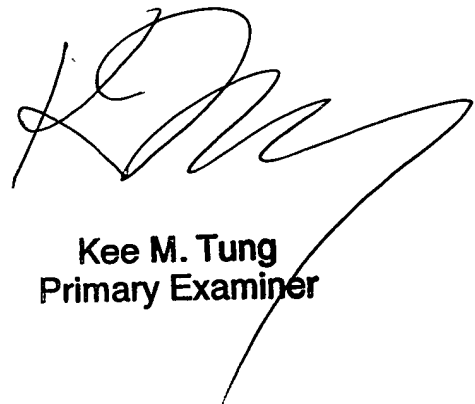**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivered response should be brought to Crystal Park II, 2121 Crystal Drive,

Arlington, VA, Sixth floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the Technology Center 2600 Customer Service Office whose

telephone number is (703) 306-0377.

Tam Tran

Examiner

Art unit 2676

Kee M. Tung
Primary Examiner